

TOSHIBA

2SC4738F

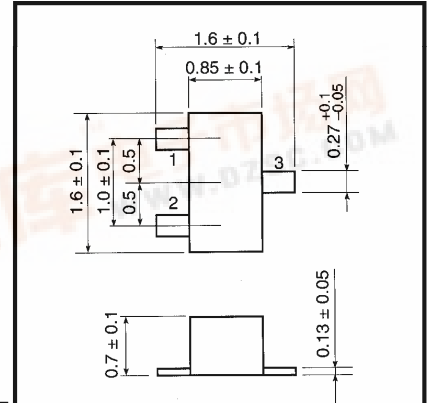
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC4738F

AUDIO FREQUENCY GENERAL PURPOSE AMPLIFIER APPLICATIONS

Unit in mm

- High Voltage and High Current
: $V_{CE0} = 50\text{ V}$, $I_C = 150\text{ mA}$ (Max.)
- Excellent h_{FE} Linearity
: $h_{FE}(I_C = 0.1\text{ mA}) / h_{FE}(I_C = 2\text{ mA}) = 0.95$ (Typ.)
- High h_{FE} : $h_{FE} = 120 \sim 400$
- Complementary to 2SA1832F
- Small Package



MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mW
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~125	$^\circ\text{C}$

1. BASE
2. EMITTER
3. COLLECTOR

JEDEC —

EIAJ —

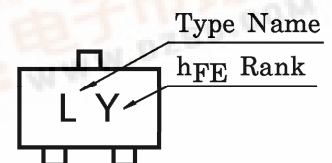
TOSHIBA 2-2HA1A

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 60\text{ V}$, $I_E = 0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5\text{ V}$, $I_C = 0$	—	—	0.1	μA
DC Current Gain	h_{FE} (Note)	$V_{CE} = 6\text{ V}$, $I_B = 2\text{ mA}$	120	—	400	
Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C = 100\text{ mA}$, $I_B = 10\text{ mA}$	—	0.1	0.25	V
Transition Frequency	f_T	$V_{CE} = 10\text{ V}$, $I_C = 1\text{ mA}$	80	—	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$	—	2.0	3.5	pF

(Note) : h_{FE} Classification Y (Y) : 120~240, GR (G) : 200~400
() Marking Symbol

MARKING



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